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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,730	06/16/2008	Tadashi Sano	NTT-5435	8765
24956 7590 06/13/2011 MATTINGLY & MALUR, PC 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314				
EXAMINER PRAKASH, GAUTAM				
ART UNIT		PAPER NUMBER		
1775				
MAIL DATE		DELIVERY MODE		
06/13/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/586,730

**Applicant(s)**

SANO ET AL.

**Examiner**

GAUTAM PRAKASH

**Art Unit**

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Transposition of Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date 14 May 2007
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The examiner has considered the Information Disclosure Statement (IDS) filed on 14 May 2007. A copy of the portion of the IDS listing the references is being returned to the Applicant along with this Office action and serves, both as acknowledgement of receipt of the IDS, and as an indication as to which references the examiner considered.

### ***Election/Restriction***

2. Applicant's election of Group I, claims 1 to 6, 11, and 12 in the reply filed on 03 May 2011 is acknowledged. While Applicant elected Group I "with traverse", Applicant did not provide any reason why the requirement to restrict was in error. Because Applicant did not distinctly and specifically point out the supposed errors in the Restriction Requirement, the election has been treated as an election without traverse. M.P.E.P. § 818.03(a). Applicant is reminded that, while an election must be made with traverse to reserve a right to petition the Restriction Requirement, if the reply does not distinctly and specifically point out supposed errors in the Restriction Requirement, the election shall be treated as an election without traverse. M.P.E.P. § 818.03(b), emphasis added.

3. Accordingly, claims 1 to 6, 11, and 12 are examined and claims 7 to 10 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to a non-elected invention. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(i).

### ***Claim Interpretation***

4. The language of claims 1 to 6, 11, and 12 invoke the requirements of 35 U.S.C. § 112, sixth paragraph. A claim limitation is presumed to invoke 35 U.S.C. § 112, sixth paragraph, if it meets the following three-prong analysis: (A) the claim limitations must use the phrase “means for” or “step for”; (B) the “means for” or “step for” must be modified by functional language; and (C) the phrase “means for” or “step for” must not be modified by sufficient structure, material, or acts for achieving the specified function. M.P.E.P. § 2181.
5. Claims 1 to 6, 11, and 12 recite a “sample solution supply means” and a “sample solution separating means”. These limitations satisfy the three-prong analysis and thus invoke 35 U.S.C. § 112, sixth paragraph. Accordingly, the “sample solution supply means” is construed to cover a reservoir, a pipe, a pump and equivalents thereof and the “sample solution separating means” is construed to cover a vibrator, a pump, a gas sprayer, a piezoelectric element, an electromagnetic valve, and equivalents thereof (Specification at paragraphs [0012] and [0018]).

### ***Claim Rejections - 35 U.S.C. § 103***

6. The following is a quotation of 35 U.S.C. § 103(a) that forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 to 6, 11, and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Spence *et al.* (U.S. Pat. No. 6,540,895).
8. Regarding claim 1, Spence *et al.* teach a cell sorter comprising a sample inlet channel, a cell detector, and outlet channels disposed downstream of the detector, which meets the claimed limitation of an “acceptor that receives the sample solution that is discharged from the termination side”. The inlet channel may be connected to a reservoir, which meets the claimed limitation of a “sample solution supply means” and the outlet channels may terminate in a container for the collection of cells (Spence *et al.* at column 9, lines 48-57). In one embodiment, Spence *et al.* teach that in response to the signal for the cell detector, flow control is activated and that the force and direction of the flow can be controlled by valves or electrodes (Spence *et al.* at column 14, line 66 – column 15, line 3).
9. Regarding claim 2, the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus. M.P.E.P. § 2114.
10. Regarding claim 3, not only is duplication and rearrangement of parts *prima facie* obvious (M.P.E.P. § 2144.04), Spence *et al.* also teach that the main flow channel is typically in communication with other channels (Spence *et al.* at column 8, lines 16-26). Additionally, the claim limitation regarding the carrier solution being “made capable of circulating” is not only a functional limitation but also merely a manner of operating the claimed apparatus, neither of which patentably distinguish the claimed apparatus from the prior art. M.P.E.P. § 2114.
11. Regarding claim 4, Spence *et al.* teach that the cells are passed through a filter before being sorted (Spence *et al.* at column 29, lines 51-52).

12. Regarding claims 5 and 6, the duplication of parts is *prima facie* obvious, as is making elements adjustable or continuous. M.P.E.P. § 2144.04.

13. Regarding claim 11, while Spence *et al.* do not explicitly teach a separate pressure or flow-rate sensor, Spence *et al.* teach that the flow-rate is used to determine the sorting delay period (Spence *et al.* at column 25, lines 5-14). In other words, Spence *et al.* implicitly teach a flow-rate sensor. Moreover, as explained *supra* Spence *et al.* teach that the pressure and flow are controlled in response to input from the detector. In other words, the detector serves as a pressure and flow-rate sensor. Assuming, *arguendo*, that Spence *et al.* do not implicitly teach a flow-rate sensor or that the detector is not a pressure and flow-rate sensor, it would be *prima facie* obvious for one of ordinary skill in the art to modify the teachings of Spence *et al.* to include a separate pressure or flow-rate sensor because it would provide additional data for better control of the pressure or flow-rate, which would result in better sorting of the cells (Spence *et al.* at column 37, line 58 – column 38, line 7).

14. Regarding claim 12, it is well within the abilities of one of ordinary skill in the art to use an AC-power supply because AC-power supplies are notoriously well known.

### ***Conclusion***

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GAUTAM PRAKASH whose telephone number is 571-270-3030. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 8:30 am to 7:00 pm, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Marcheschi can be reached on 571-272-1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, please call 800-786-9199 (in USA or CANADA) or 571-272-1000.

/G.P./  
Examiner, Art Unit 1775

/Nathan A Bowers/  
Primary Examiner, Art Unit 1775